ATTACHMENT B

Clean Replacement/New Claims (entire set of pending claims)

Following herewith is a clean copy of the entire set of pending claims.

1. A desulfurizing agent manufacturing method comprising mixing a mixture containing a copper compound and a zinc compound with an aqueous solution of an alkali substance to prepare a precipitate, calcing the resultant precipitate, forming the calcined precipitate into a shaped form of a copper oxide - zinc oxide mixture, impregnating the shaped form with iron and/or nickel, calcining the impregnated form to produce a calcined oxide, and reducing the calcined oxide with hydrogen.

2. The desulfurizing agent manufacturing method according to claim 1, wherein the iron and/or nickel content in the calcined oxide is 1 to 10 wt %.

3. (amended) The desulfurizing agent manufacturing method according to claim 1, wherein reduction of the calcined oxide is performed at 150 to 300°C using dilute hydrogen gas in which the hydrogen concentration is 6 vol % or less.

4. A desulfurizing agent manufacturing method comprising mixing a mixture containing a copper compound, a zinc compound and an aluminum compound with an aqueous solution of an alkali substance to prepare a precipitate, calcining the resultant precipitate, forming the calcined precipitate into a shaped form of a copper oxide - zinc oxide - aluminum oxide mixture, impregnating the shaped form with iron and/or nickel, calcining the impregnated form to produce a calcined oxide, and reducing the calcined oxide with hydrogen.

5. The desulfurizing agent manufacturing method according to claim 4, wherein the iron and/or nickel content in the calcined oxide is 1 to 10 wt %.

6. (amended) The desulfurizing agent manufacturing method according to claim 4, wherein reduction of the calcined oxide is performed at 150 to 300 °C using dilute hydrogen gas in which the hydrogen concentration is 6 vol % or less.

7. (amended) A hydrocarbon desulfurization method which is characterized in that a hydrocarbon raw material is desulfurized in the presence of hydrogen with using the desulfurizing agent described inclaim 1.

8. The hydrocarbon desulfurization method according to claim 7, wherein an amount of hydrogen which is such that the hydrogen/hydrocarbon raw material molar ratio is 0.0005 to 0.4 is present.

9. (amended) The hydrocarbon desulfurization method according to claim 7, wherein desulfurization is performed at a pressure of 0.05 to 50 atm, a temperature of 100 to 400°C, and a space velocity (GHSV) of 200 to 10,000 h^{-1}.

10. The hydrocarbon desulfurization method according to claim 7, wherein the raw material hydrocarbon is town gas, and an amount of hydrogen is present so that the hydrogen/town gas molar ratio is 0.0005 to 0.4.

11. The town gas desulfurization method according to claim 10, wherein desulfurization is performed at a pressure of 0.05 to 50 atm, a temperature of 100 to 400°C, and a space velocity (GHSV) of 200 to 10,000 h^{-1}.

12. The town gas desulfurization method according to claim 11, wherein desulfurization is performed so that the sulfur content in the town gas is not more than 5 ppb (vol ppb).

clean claims